

**REMARKS**

The Examiner is thanked for the withdrawal of the previous rejection and for the thorough examination of the present application. The patentability of the claims is discussed in greater detail below. Favorable reconsideration is respectfully requested.

**I. Claims 1, 19, 20, and 28 are Patentable**

The Examiner rejected independent claims 1, 20, and 28 as unpatentable over U.S. Patent No. 6,587,476 to Lewin et al. ("the Lewin patent"). The Examiner correctly notes "a plurality of signal processing units (Fig. 5, elements 82, 84)", that "Fig. 6 discloses TxEnable/RxEnable, to/from Ethernet/HDLC Converter, 100", and that "the controller (90) functions to control the operation of the transceivers 82, 84, 86". However, the Examiner incorrectly contends that "The HDLC would have to be operating in a Normal Response mode (used most frequently in multi-port lines; only transmit/receive when and only when it is instructed to do so) for proper operation of the system and thus would also have a mode line (not shown) for operation, since Asynchronous Response Mode and Asynchronous Balanced Mode (not widely used) of the HDLC would require a second HDLC)".

For example, the Lewin patent states at column 10, lines 39-51 that "the HDLC frame is synchronous and relies on the physical layer for clocking and synchronization of the transmitter and receiver". Stated another way, the mode line that the Examiner correctly identified as not shown is not shown in the Lewin patent because it is not needed by the

Ethernet/HDLC converter **100** of FIG. 6 due to the physical layer providing synchronization of the transmitter and receiver.

The Examiner also incorrectly contends that "control flow information to at least one of the preceding transceivers in a transmit mode and control flow information to at least one of the following in a receive mode would be an inherent feature, since Lewin et al. discloses the invention operating bi-directional (see bi-directional arrows), i.e., a transmit and receive mode of operation". For instance, independent claim 1, recites a control line to which each signal processing unit is connected, the control line communicating flow control information either in the transmit mode to at least one of the preceding signal processing units, or in the receive mode, to at least one of the following signal processing units. The Examiner may be correct in the assessment that the arrows of the Lewin patent represent data flowing both upstream and downstream between the signal processing units. However, the Examiner makes no attempt to explain how, when, and/or why the identified bi-directionally arrows of the Lewin patent would communicate flow control information in the transmit mode to at least one of the preceding signal processing units, as well as communicate flow control information in the receive mode to at least one of the following signal processing units. In other words, the claimed control line is relaying flow control information in a direction opposite the incoming or outgoing packets and the Lewin patent and the Examiner's argument are both silent on such.

As a result, the Examiner fails to meet the standard outlined in MPEP 2112 § IV that states, "the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic", and/or, "in relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art". Independent claims 20 and 28 recite features similar to claim 1.

Accordingly, it is submitted that independent claims 1, 20, and 28 are patentable over the prior art. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

## **II. Claims 2, 3, 11, 12, 14, 15, 17, and 18 are Patentable**

The Examiner rejected independent claims 2 and 3 as unpatentable over U.S. Published Application No. 2002/0120831 to Wong et al. ("the Wong application"). The Examiner correctly notes that the Wong application discloses "stalling means arranged such that when a pipeline generates a stall signal at stage i, all stages up to and including stage i are stalled" at paragraph 0010.

In contrast, independent claim 2, for example, recites a control line to which each signal processing unit is connected, the control line communicating flow control information to stall at least one of the preceding signal

processing units for feedback control of the signal processing units. The Wong application fails to disclose such because it teaches all stages up to and including stage i are stalled. In other words, the Wong application teaches stalling all of signal processing units upstream including the signal processing unit generating the stall signal, but fails to teach the selective stalling of upstream signal processing units, and fails to teach not stalling the most downstream signal processing unit. Independent claim 3 recites features similar to claim 2.

Accordingly, it is submitted that independent claims 2 and 3 are patentable over the prior art. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

### **III. Claims 4-10, 13, and 16 are Patentable**

The Examiner rejected dependent claims 4-10, 13, and 16 as unpatentable over either the Lewin patent or the Wong application in view of U.S. Patent No. 6,108,713 to Sambamurthy et al. ("the Sambamurthy patent"), U.S. Patent No. 4,686,668 to Koseki et al. ("the Koseki patent"), and/or U.S. Patent No. 5,349,647 to Freiburg et al. ("the Freiburg patent"). Each of the claims 4-10, 13, and 16 are based on a claim patentable over the Lewin patent, as argued above in section I, or the Wong application, as argued above in section II. The Sambamurthy, Koseki, and/or Freiburg patents fail to disclose the claimed elements missing in the Lewin patent or the Wong application. Consequently, claims 4-10, 13, and 16

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are patentable because all of the proposed combinations fail to disclose all the claimed recitations.

#### **IV. Claims 21 and 22 are Patentable**

The Examiner rejected independent claims 21 and 22 as unpatentable over U.S. Published Application No. 2003/0096634 to Lin ("the Lin patent") in view of U.S. Patent No. 6,650,880 to Lee et al. ("the Lee patent") and further in view of the Wong application. The Examiner correctly notes that neither "Lin nor Lee et al. explicitly disclose the control line to which each signal processing unit is connected to, the control line communicating control flow information to stall at least one of the signal processing following the signal processing chain for feedforward control of the signal processing units".

The Wong application, as argued above in section II, also fails to provide the claimed control line. In contrast, independent claim 21, for example, recites a control line to which each signal processing unit is connected, with the control line communicating flow control information to stall at least one of the preceding signal processing units for feedback control of the signal processing units. Independent claim 22 recites features similar to claim 21. Accordingly, it is submitted that independent claims 21 and 22 are patentable over the prior art.

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**V. CONCLUSIONS**

In view of the forgoing remarks, it is respectfully submitted that this case is now in condition for allowance and such action is respectfully requested. If any points remain at issue that the Examiner feels could best be resolved by a telephone interview, the Examiner is urged to contact the attorney below.

No fee is believed due with this Amendment, however, should a fee be required please charge Deposit Account 50-0510. Should any extensions of time be required, please consider this a petition thereof and charge Deposit Account 50-0510 the required fee.

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